



BOGIE HEARTH FURNACE TT-BHF-275- 1200

The trolley-type sintering Bogie Hearth Furnace TT-BHF-275-1200 is engineered for processing large materials or supporting small-scale production. Constructed with high-quality furnace components and advanced building techniques optimized for high-capacity operations, it delivers stable and consistent temperature control. An automated trolley system ensures smooth material handling and reliable product quality, making it ideal for continuous use in research or production environments.

This furnace is well-suited for processing advanced materials, including metals, ceramics, nanomaterials, and semiconductors. It features a 275L chamber capable of continuous operation at 1100°C, with a maximum temperature of 1200°C. Heating is provided via high-quality HRE alloy resistance wire, and temperature is precisely monitored using an N-type thermocouple, achieving $\pm 1^{\circ}\text{C}$ accuracy. The system operates on 380V/30 kW, providing robust, high-efficiency performance for both industrial and laboratory applications.

Model No.	TT-BHF-275-1200
Chamber Volume	275L
Continuous Temperature	1100°C
Max Temperature	1200°C
Voltage	380V/30kw
Heating Element	High Quality Alloy Resistance Wire□ HRE□
Temperature Precision	$\pm 1^{\circ}\text{C}$
Thermocouple	N type

APPLICATIONS

- **Advanced Ceramic Materials** – Provides uniform high-temperature sintering and densification of ceramics, ensuring excellent structural integrity, thermal resistance, and mechanical strength for industrial and research applications.
- **Nanomaterials Research** – Enables precise thermal processing for nanostructures and advanced composites. Supports R&D in functional nanomaterials used in electronics, catalysis, and energy storage.
- **Semiconductor Materials** – Facilitates annealing, diffusion, and oxidation of semiconductor substrates at high temperatures. Ensures accurate temperature control critical for microelectronics and optoelectronics development.
- **Powder Metallurgy** – Supports high-temperature sintering of metal powders into dense, uniform components. Ideal for manufacturing complex shapes and advanced alloys in both research and production environments.
- **Petrochemical & Chemical Laboratories** – Suitable for catalyst activation, thermal decomposition, and reaction mechanism studies requiring high-temperature stability. Delivers accurate, reproducible results for chemical R&D.
- **Aerospace Materials Engineering** – Enables testing and processing of high-performance alloys, ceramics, and composites used in aerospace applications. Maintains thermal stability and validates strength under extreme conditions.
- **Energy & Battery Research** – Provides thermal treatment for solid-state electrolytes, lithium-ion battery materials, and next-generation energy storage systems. Ensures consistent high-temperature stability for energy materials development.
- **Universities & Research Institutes** – Ideal for advanced studies in physics, chemistry, materials science, and engineering. Offers versatile programming, reliable performance, and robust safety for academic laboratories.

- **Industrial Quality Control & Certification** – Delivers ultra-high temperature testing for product validation, compliance verification, and certification. Conforms to ISO, CE, SGS, and TÜV standards for regulated industries.

FEATURES

- This furnace features a multi-layer thermal insulation design using high-performance refractory materials. It includes a robust lining made of lightweight refractory bricks or ceramic fiber, assembled with high-strength stacking and jointing techniques. Free of asbestos, the design minimizes heat loss and ensures low energy consumption.
- Heating elements are positioned on three sides—left, right, and bottom—to promote uniform temperature distribution throughout the chamber.
- A silicon carbide base plate protects the furnace bottom, offering excellent mechanical strength, thermal conductivity, and horizontal load support. The bottom-mounted trolley moves smoothly and without vibration, while the loading system allows materials to be placed from below, with a movable work platform for added convenience.
- Customization is available to meet specific processing needs.
- The advanced control system delivers precise temperature regulation. An automatic flip-type exhaust vent at the top supports effective material debinding. A circulation fan at the top improves temperature uniformity.
- Optional features include a rapid cooling unit for furnace temperatures up to 400°C, and both manual and automatic air intake control units.

TECHNICAL SPECIFICATIONS

Model	Chamber size□ mm□	Volume	Max temp.	Working temp.	Voltage	Power	Heating element	Temp precision
TT-BHF-96-1200	400×600×400	96L	1200°C	1100°C	380V	18KW	HRE	±1°C

TT-BHF-288-1200	600×800×600	288L	1200℃	1100℃	380V	30KW	HRE	±1℃
TT-BHF-640-1200	800×1000×800	640L	1200℃	1100℃	380V	45KW	HRE	±1℃
TT-BHF-1200-1200	1000×1200×1000	1200L	1200℃	1100℃	380V	80KW	HRE	±1℃
TT-BHF-2160-1200	1200×1500×1200	2160L	1200℃	1100℃	380V	150KW	HRE	±1℃
TT-BHF-96-1400	400×600×400	96L	1400℃	1300℃	380V	21KW	SIC	±1℃
TT-BHF-288-1400	600×800×600	288L	1400℃	1300℃	380V	30KW	SIC	±1℃
TT-BHF-640-1400	800×1000×800	640L	1400℃	1300℃	380V	50KW	SIC	±1℃
TT-BHF-1200-1400	1000×1200×1000	1200L	1400℃	1300℃	380V	100KW	SIC	±1℃
TT-BHF-2160-1400	1200×1500×1200	2160L	1400℃	1300℃	380V	200KW	SIC	±1℃
TT-BHF-96-1700	400×600×400	96L	1700℃	1600℃	380V	25KW	MoSi2	±1℃
TT-BHF-288-1700	600×800×600	288L	1700℃	1600℃	380V	50KW	MoSi2	±1℃
TT-BHF-640-1700	800×1000×800	640L	1700℃	1600℃	380V	80KW	MoSi2	±1℃
TT-BHF-1200-1700	1000×1200×1000	1200L	1700℃	1600℃	380V	150KW	MoSi2	±1℃
TT-BHF-2160-1700	1200×1500×1200	2160L	1700℃	1600℃	380V	300kw	MoSi2	±1℃



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